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Application No.: 09/818,697   Docket No.: JCLA7157

REMARKS

Present Status of the Application

The Office Action rejected claims 1-3. Specifically, the Office Action rejected claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Nakamura (U. S. Patent 5,218,693) in view of Davidovici et al. (U. S. Patent 6,130,906; hereinafter Davidovici). Claims 1-3 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Claim Rejections under 35 USC 103

Claim 1-3 rejected claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Davidovici. Applicants respectfully traverse the rejections for at least the reasons set forth below.

The present invention, as for example shown in FIG. 2A and Fig. 2B, the received signal is sequentially sampled into multiple sampled data and sequentially stored in the PAM. At the same time, the position of PN sequence is shifted according to the storage position of the sample data. For example, in step n+2, the sample data is stored into block 202, and then, the first PN(1) is shifted to the second position 242, corresponding to position 202. Basically, the data from ADC is usually with multi-bit precision, such as 4 – 10 bits, and the data of the PN code is usually just one bit wide. To take correlation between the received data (output from ADC) and the PN code, the present invention proposes to shift the PN code but not the conventional way of shifting the data. The features are recited in independent claim claims 1 and 3. Claim 2 further defines the features of the present invention.

Page 2 of 5

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In re Nakamura (see Fig. 12), several data channels are received by the correlater 52 in parallel (col. 10, lines 29-33).   The PN code generator 56 generates the desired PN and stored in the shift register 51.   The correlater 52 also receives the generated PN code to correlate the received data with the PN code.

As disclosed by Nakamura, the shift register 51 is to store the generated PN code but not for the operation as stated by the Office Action (see page 2 indicated by step (52) and step (51)). In addition, the correlator 51 does not shift the PN code but just correlate the data channels with the PN code, so as to produce a new set of data (col. 10, lines 22-25).   In other words, it can be understood that the positions of the PN code are not changed but the data are changed. Nakamura discloses the method to find the correlation around the peak to get the timing information for synchronization purpose.

Therefore, Nakamura discloses a different operation mechanism from the present invention.

In re Davidovici, the Office Action further refers to Davidovici to provide the missing features in Nakamura.   However, Davidovici actually still fails to provide the missing features in Nakamura.

Basically, Davidovici discloses the way to find the correlation between the received data (ADC data) and multiple PN codes.   This is in different mechanism from the present invention.

In Abstract of Davidovici, clearly, Davidovici wants to receive a plurality of parallel spread-spectrum signals.   The Office Action cites Davidovici to provide the parallel fashion for the correlater 52 of Nakamura, so as to receive the data in parallel.   However, the demultiplexer

Page 3 of 5

Application No.: 09/818,697   Docket No.: JCLA7157

121 is used to select from the available symbol registers (col. 5, lines 29-31). The symbols output from the demultiplexer 121 are stored in odd block 122 or the eve block 222. This does not disclose the operation of sequentially sampling and storing the data, either. The Office Action also refers to Fig.1; and col. 4, line 30 – col. 5, line 9. However, this disclosure of Davidovici does not modify the correlater 52 of Nakamura into the present invention.

Davidovici does not provide the disclosure or the motivation to modify Nakamura into the present invention. Davidovici discloses the parallel fashion but this parallel fashion is not the features recited in the present invention.

For at least the foregoing reasons, Applicants respectfully submit that independent claims 1 and 3 patently define over the prior art references, and should be allowed. For at least the same reasons, dependent claim 2 patently defines over the prior art references as well.

Page 4 of 5

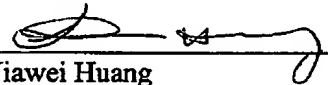**Application No.: 09/818,697**   **Docket No.: JCLA7157**

CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-3 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
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Date: 7/22/2005

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